

Technical Data Sheet

Purified Rat Anti-Human CD124

Product Information

Material Number:	552472
Alternate Name:	IL-4 Receptor α chain
Size:	0.5 mg
Concentration:	0.5 mg/ml
Clone:	hIL4R-M10.1
Isotype:	Rat IgG2a, κ
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

Description

The soluble human IL-4 receptor, also known as sCD124, is a 140-kDa multimeric membrane glycoprotein that binds IL-4 with high affinity. Although many cell types are able to produce soluble IL-4R at low levels, its production is significantly up-regulated in vitro by T cell activation and IL-4. Cytokines secreted by Th2 cells were found to significantly up-regulate soluble IL-4R production following antigenic stimulation. Studies have indicated that the production of sIL-4R in vivo is closely associated with the secretion of IL-4, and are consistent with reports indicating that sIL-4R are involved in the regulation of IL-4 activity during immune response.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. Store undiluted at 4°C.

Application Notes

Application

ELISA Capture	Routinely Tested
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Recommended Assay Procedure:

ELISA Capture: Purified hIL4R-M10.1 anti-human IL-4R antibody (Cat. No. 552472) is useful as a capture antibody for a sandwich ELISA which measures human IL-4R protein levels. Purified hIL4R-M10.1 anti-human IL-4R antibody can be paired with biotinylated hIL4R-M.8.2.2 anti-human IL-4R (Cat. No. 552473) as the detection antibody, with recombinant soluble human IL-4R as the standard. This capture antibody should be titrated between 1 - 4 μ g/ml to determine the optimal coating concentration for ELISA. To obtain linear standard curves, doubling dilutions of recombinant human IL-4R ranging from 2000 to 15 pg/ml are recommended for inclusion in each ELISA plate. For specific methodology, see BD Pharmingen's Immune Function Handbook, at <http://www.bdbiosciences.com/pdfs/manuals/02-8100055-21B.pdf>.

Note: This ELISA antibody pair shows no cross-reactivity with the following recombinant human cytokines: IL-1RI, IL-1RII, IL-1 α , IL-1 β , IL-2, IL-2sR- α , IL-3, IL-4, IL-5, IL-6, IL-6R gp130, IL-7, IL-8, IL-10, IL-12 p40, IL-12 p70, IL-13, IL-15, TNF- α , TNF- β , sTNFRI, sTNFRII, GM-CSF, TGF β , IFN γ , CD40L, TRAIL, FasL.

Suggested Companion Products

Catalog Number	Name	Size	Clone
552473	Biotin Rat Anti-Human CD124	0.5 mg	hIL4R-M8.2.2

Product Notices

- Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
- Since applications vary, each investigator should titrate the reagent to obtain optimal results.
- Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

References

Chomarat P, Banchereau J. An update on interleukin-4 and its receptor. *Eur Cytokine Netw.* 1997; 8(4):333-344.(Biology)
 Fernandez-Botran R, Chilton PM, Ma Y, Windsor JL, Street NE. Control of the production of soluble interleukin-4 receptors: implications in immunoregulation. *J Leukoc Biol.* 1996; 59(4):499-504.(Biology)
 Jacobs CA, Lynch DH, Roux ER, et al. Characterization and pharmacokinetic parameters of recombinant soluble interleukin-4 receptor. *Blood.* 1991; 77(11):2396-2403.(Biology)

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